

BOGOYAVLENSKIY, Vladimir Pavlovich; VOLKOV, Petr Vasil'yevich;
DOBRYAKOV, Anatoliy Vasil'yevich; SMORODINA, Tat'yana
Aleksandrovna, kand. fiz.-mat. nauk; OTRYASHENKOV, Yu.,
kand. tekhn. nauk, dots., retsenzent; AZI, N.E., inzh.,
retsenzent; AFANAS'YEVA, A.V., inzh., retsenzent;
KULIKOV, V.N., red.

[Laboratory studies on the physics and metrics of semi-
conductor devices] Laboratorno-prakticheskie raboty po
fizike i metrike poluprovodnikovyykh priborov. Moskva, Pro-
sveshchenie, 1965. 94 p. (MLA 18:8)

L 52780-65 EWA(k)/EWT(1)/EEC(t) LHB
 ACCESSION NR: AP5010748

UR/0181/65/007/004/1245/1247

AUTHOR: Danil'chuk, L. N.; Smorodina, T. A.

TITLE: Observation of stress fields around individual dislocations by the method of anomalous passage of x-rays

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1245-1247

TOPIC TAGS: dislocation line, stress analysis, Burgers vector, x ray diffraction, glide plane

ABSTRACT: The crystal was investigated by two methods: polarization optical method (V. L. Indenbom et al, Naprazheniya i dislokatsii v poluprovodnikakh [Stresses and Dislocations in Semiconductors], Izd. AN SSSR, M., 1962) and by the method of anomalous passage of x-rays. To ensure that the wave field propagates along the dislocation line, a special sample was grown, containing essentially dislocations along the growth direction [110]. In the x-ray state of the crystal, the Laue diffraction, the reflections (220) and (400), and CuK α radiation was used. The registration was with the Bragg reflection on NIKFI photographic plates (MK emulsion). Comparison of the results obtained by the two methods and a check of the sensitivity.

L 52780-65

ACCESSION NR: AP5010748

ty of the image contrast to the relative orientations of the crystal and the x-ray beam show that the method of anomalous transmission of x-rays makes it possible to determine uniquely the direction of the Burgers vector, but no theoretical explanation of the contrast of the dislocation image can be presented at the present time. "The authors thank V. I. Nikitenko for supplying the crystal and help with the experiment and A. M. Yelistratova for critical review of the manuscript and valuable hints." Orig. art. has: 2 figures.

ASSOCIATION: Novgorodskiy gosudarstvennyy pedagogicheskiy institut (Novgorod State Pedagogical Institute)

SUBMITTED: 09Nov64

ENCL: 00

SUB CODE: SS,OP

NR REF SOV: 001

OTHER: 000

Card 2/2

SMORODINA, T. P.

X-ray investigation of the tellurium - selenium system. Fiz. tver.
tela 2 no.5:883-886 My '60. (MIRA 13:10)

1. Tekhnologicheskij institut, Kafedra fizicheskoy khimii,
Leningrad.

(Tellurium--Spectra) (Selenium--Spectra)

NISHCHENKO, K.P.; PONOMAREVA, A.M.; RAVDEL', A.A.; BARON, N.M.;
YEGOROV, I.M.; KVIAT, E.I.; VOLOVA, Ye.D.; MARKOVICH, V.G.;
SEMENOV, G.I.; MARGOLIS, V.N., SMORODINA, T.P.; YAVORSKIY,
I.V. Prinimal uchastiye FRANK-KAMENETSKIY, V.A.; TOMARCHENKO,
S.L., red.; LEVIN, S.S., tekhn. red.

[Practical work in physical chemistry] Prakticheskie raboty po
fizicheskoi khimii. Izd.2., perer. Leningrad, Gos. nauchno-
tekhn. izd-vo khim. lit-ry, 1961. 374 p. (MIRA 15:2)
(Chemistry, Physical and theoretical--Laboratory manuals)

SMORODINA, T.P.; SETKINA, O.N.

Spectral determination of selenium in tellurium. Izv.vys.nabek.zav.:-
khim.i khim.tekh. 4 no.4:565-568 '61. (MIRA 15:1)

1. Leningradskiy tekhnologicheskoy institut imeni Lensoveda, kafedra
analiticheskoy khimii.
(Selenium--Spectra) (Tellurium--Analysis)

REPORT OF THE

[illegible]

SMORODINKIN, V.

Relying on active members. Voen.znan.31 no.7:7 J1'55. (MIRA 8:12)

1. Predsedatel' gorodskogo komiteta Vsesoyuznogo dobrovol'nogo
obshchestva sodeystvii armii, aviatsii i flota.
(Military education)

* 43995-66 EWT(m)/EWP(t)/ETI IJP(c) - JD
ACC NR: AP6015623 (A) SOURCE CODE: UR/0413/66/000/009/0017/0017

INVENTOR: Smorodinnikov, A. V.; Khokhlov, D. G.; Shamarin, V. A.;
Ogloblina, Z. A. 30 B

ORG: none

TITLE: Method of obtaining phosphorus. Class 12, No. 181062 [announced by
the Ural Scientific Research and Planning Institute for Concentration and Mechanical
Processing of Minerals (Ural' skiy nauchno-issledovatel' skiy proyektnyy institut
po obogashcheniyu i mekhanicheskoy obrabotke poleznykh iskopayemykh)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 17

TOPIC TAGS: phosphorus, phosphate mineral, sintering, fluxing additive

ABSTRACT: An Author Certificate has been issued for a method of obtaining a
phosphorus from raw phosphate in the presence of fluxing additives by sintering
phosphorite with subsequent electrothermal reduction of the agglomerate obtained.
To simplify the process, the fluxing additives are introduced before sintering the
phosphorite. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 03Dec64/

EPSHTEYN, Ye.I., inzh.; SMORODINOV, A.N., inzh.; BOCHAROV, D.I., inzh.;
BOCHKAREV, G.N., inzh.; Prinimali uchastiye: MURAV'YEV, I.T.;
MASLOV, V.I.; LOBANOV, I.I.; IVANOV, A.P.; IVANOV, L.I.

Start of converter substations with mercury-arc rectifiers without
sorting and forming of the rectifiers. Prom. energ. 18 no.9:32-35
S '63. (MIRA 16:10)

BULYCHEV, V., doktor tekhn.nauk; SMORODINOV, M., kand.tekhn.nauk

Construction of driven piles in France. Na stroi. Ros. 4 no.5:
30-31 My '63. (MIRA 16:5)
(France—Piling (Civil engineering))

SMORODINOV, M. A.

Name : SMORODINOV, M. A.
Dissertation : Utilizing freight reserves of boxcars in
hauling freight in containers
Degree : Cand Tech Sci
Defended At : Min of Railways USSR, Moscow Transportation
Economics Inst
Publication Date, Place : 1956, Moscow
Source : Knizhnaya Letopis' No 6, 1957

SMORODINOV, M.A., inzh.

Efficiency of transporting packaged goods in small-capacity containers.
Trudy ~~MTBI~~ no.9:42-54 '58. (MIRA 11:5)
(Railroads—Freight) (Containers)

SMORODINOV, M.A., kand.tekhn.nauk; LAZAREV, Kh.M., inzh.

Automotive transportation should be used for short distance shipments. Zhel.dor.transp. 44 no.11:47-49 N '62.

(MIRA 15:11)

1. Nachal'nik otdela organizatsii transportno-ekspeditsionnoy raboty Moskovskogo upravleniya konteynernykh perevozok i transportno-ekspeditsionnykh operatsiy (for Lazarev).
(Freight and freightage)

SMEKHOV. A.A., kand.tekhn.nauk; SHTEFKO. I.V., kand.tekhn.nauk; SMORODINOV. M.A.,
kand.tekhn.nauk; ARKHANGEL'SKAYA. L.F., inzh.

Construction and operation technology of the base unloading stations
for mineral fertilizers. Zhel.dor.transp. 47 no.10:32-34 0 '65.
(MIRA 18:10)

EMORODINOV, I.V., kand. tekhn. nauk; SHTEPKO, I.V., kand. tekhn. nauk;
MIR, 1964, 17:12.

Overall mechanization of the loading and unloading of mineral
fertilizers. Makh. i avtom. proizv. 18 no.10:13-17 0 '64.
(MIRA 17:12)

SMORODINOV, E.A., kand.tekhn.nauk; LUTEPKO, I.V., kand.tekhn.nauk; SHTEFKO,
G.M., inzh.

Mechanization of the loading and unloading of mineral fertilizers.
Mekh. i avtom.proizv. 19 no.2:23-27 F '65.

(MIRA 18:3)

SMORODINOV, M.I., inzhener

Laying pipelines by the trenchless penetration method. Mekh.
Mekh.trud.rab. 9 no.7:19-20 J1 55. (MLRA 8:9)
(Pipelines)

SMORODINOV, M.I., inzhener.

Trenchless laying of pipelines. Transp.stroi. 6 no.9:18-20 S '56.
(MLBA 9:11)

(Pipelines)

SMORODINOV, M.I., inzhener.

~~SMORODINOV, M.I., inzhener.~~
Sinking cofferdam piles in building the Kuybyshev Hydroelectric
Power Station. Gidr.stroi.25 no.6:9-12 J1 '56. (MIRA 9:9)
(Piling (Civil engineering)) (Kuybyshev Hydroelectric Power Station)

DITRIKH, Yu.V., inzhener; SMORODINOV, M.I., inzhener.

Automatic caisson sinking. Gidr.stroi.25 no.8:14-17 S '56.
(Caissons) (MLBA 9:10)

SMORODINOV, M.I.

VEYNBLAT, Z.S., inzhener; SMORODINOV, M.I.

Ice sheet in the construction of the spillway dam of the Gorkiy
Hydroelectric Power Station. Gidr. stroi. 26 no.3:5-9 Mr '57.
(Gorkiy hydroelectric power station) (MLRA 10:4)

VEYNBLAT, Zinoviy Samuilovich; SMORODINOV, Mikhail Il'ich; BOBORYKIN,
Ye.P., otv. red.; NIKITIN, A.P., nauchnyy red.; FARADZH, N.O.,
red.

[Artificial freezing of soil during construction] Iskusstvennoe
zamorazhivanie gruntov na stroitel'stve. Moskva, TSentr.biuro
tekhn. informatsii, 1958. 33 p. (MIRA 15:1)
(Soil freezing)

SMORODINOV, M., inzh.

Using radioactive isotopes in studying the wear of machinery used
in quarrying building stones. Stroi. mat. 4 no.12:34-36 D '58.
(MIRA 11:12)

(Radioisotopes--Industrial applications)
(Quarries and quarrying--Equipment and supplies)

307/180-59-1-28/29

AUTHOR:

TITLE:

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 1, pp 123-124. (USSR)

ABSTRACT: On 18-20 November 1958 a conference was held at the Institut gor-nog, Jela AN SSSR (Mining Institute AS USSR).

One group on the physics of rock breakdown, heard the following reports: A. A. Zelenin, (JGD AN SSSR) on "Some Investigations in the Field of Mohr's Ring Construction"; A. I. Beron, VUGI, on "Physical Nature of Effects in the Cutting of Brittle Rocks"; B. Ya. Rykals, VNIIB, on "Mechanisms of Rock Breakdown in Static and Dynamic Insertion of Punches"; V. P. Samoylov, NIOSP, and Shih Chung-han (MII) on "Experimental Investigation with the Aid of Radioactive Isotopes of the Process of the Introduction of Symmetrical Wedges (Stamps) into Rocks"; V. M. Matrosov, Tomskiy politekhnicheskii institut (Tomsk Polytechnical Institute), on "The Breakdown of Rock in Vibration-Motion Drilling by the Core Method".

The second group, dealing with tool durability, heard the following reports: I. V. Kuznetsov (JGD AN USSR) on "Abrasive Properties of Rocks and Their Influence on Drill-Ridge Blunting (in Perforation Drilling)"; A. A. Morozov, NIOSP, on "Investigation of Rock-Cutting Tool Wear with the Aid of Radioactive Isotopes"; V. V. Sevast'yanov, VUGI, on "Investigation of Tool Durability in the Course of Impact Chipping of Rocks"; I. A. Ter-tsiar'ev, AISW, on "Main Stages in Cutting-Tool Wear in Stone Cutting"; A. A. Zelenin, AISW, on "Local Wear in Stone Cutting and Friction Work"; G. G. Maryuk, Novosibirskiy politekhnicheskii institut (Novosibirsk Polytechnical Institute), on "Investigation of ShDZ-Combine Cutting-Tool Wear"; V. V. Kuznetsov, Opytno-issledovatel'skiy tsentr Morill'skogo kombinata (Experimental-research Center of the Morill'skii kombinat), on "Investigation of the Durability of the Drilling Tool and the Drillability of the Gabbro-basalts of the Morill'sk. Deposits"; B. A. Lyubimov on the "Work of Giproglennash".

Afterwards communications were presented by representatives of the Dnepropetrovskiy sovny institut (Dnepropetrovsk Mining Institute), Novosibirskiy politekhnicheskii institut (Novosibirsk Polytechnical Institute), Khabarovskiy sovny institut (Khar'kov Mining Institute), Kazakhskiy sovny politekhnicheskii institut (Kazakh Mining and Metallurgical Institute) and others. The conference noted that in this work had been done on some of the subjects discussed. It recommended that work on the physics of rock disintegration should be carried out mainly at the JGD AN USSR. The Institute of Geology and Geophysics of the Academy of Sciences of the USSR (Institute of Geology and Geophysics of the Academy of Sciences of the USSR) and work on tool wear and breaking processes at NPI, AISW, Giproglennash, VUGI, VNIIB, and the Institut tverdykh

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SMORODINOV, M.I., inzh.

Using radioisotopes in investigating the wear of cutters of
stonecutting machines. Stroi.i dor.mashinostr. 4 no.10:
28-29 0 '59. (MIRA 13:2)
(Radioisotopes--Industrial applications) (Stonecutting)

SMORODINOV, M.I.

Investigating the destruction of rocks caused by cutting
instruments used in underground construction. Osn., fund. i
mekh. grun. no. 5:7-10 '59. (MIRA 12:12)
(Quarries and quarrying--Equipment and supplies)

SMORODINOV, M.I., inzh.

Effect of the geometry and performance of tools on the power required
in stonecutting. Stroi. mat. 5 no.10:36-38 0 '59.

(MIRA 13:2)

(Quarries and quarrying--Equipment and supplies)

SMORODINOV, M.I., inzh.

Using radioactive tracers for investigating wear of excavating
machinery. Transp. stroi. 9 no.4:46-49 Ap '59. (MIRA 12:6)
(Excavating machinery)
(Mechanical wear)
(Radioactive tracers--Industrial applications)

SMORODINOV, M.I., inzh.

Effect of the cutter wear on the force of rock cutting.
Shakht.stroi. no.11:12-15 N '59. (MIRA 13:3)

1. Nauchno-issledovatel'skiy institut osnovaniy i podzemnykh
sooruzheniy. (Mining machinery) (Mechanical wear)

28 (5)

AUTHOR:

Smorodinov, M. I.

SOV/52-25-7-34/50

TITLE:

On the Methods for the Investigation of Abrasion by Means of
Radioactive Isotopes (K metodike izucheniya iznosa s
pomoshch'yu radioaktivnykh izotopov)

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 7, pp 875-876 (USSR)

ABSTRACT:

Experiments on the applicability of artificial radioactive isotopes in investigations of the abrasion of cutting machines of hard alloys for the cutting of rocks were carried out together with the Vsesoyuznyy nauchno-issledovatel'skiy instrumental'nyy institut (All-Union Scientific Research Institute of Instruments). The rocks were cut with a cutting knife to which a lamella (1.6 g) was fastened which had been made radioactive by radiation with neutrons of the isotope ^{187}W . The abrasion of the lamella was determined from the radioactivity of the cutting products which was measured by the device B-2 or a scintillation counter. A universal screw-cutting lathe model 1620 was used. The experimental results showed that the majority of the abrasion products goes with the finest rock fractions. Thus it was found that the abrasion can be determined from the total amount of cutting products only. The previous

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On the Methods for the Investigation of Abrasion
by Means of Radioactive Isotopes

SOV/32-25-1-34/50

investigations by which an even curve of the function abrasion-cutting way was obtained are incorrect because this curve shows a different course (Fig 2) as has been proved by the experimental results according to the method under discussion. There are 2 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut osnovaniy i podzemnykh sooruzheniy Akademii stroitel'stva i arkhitektury (Scientific Research Institute of Foundations and Subterranean Installations of the Academy of Construction and Architecture)

Card 2/2

SMORODINOV, M.I.

Using radioactive isotopes in studying the wear of rock-cutting.
[Trudy] NIIOSP no.41:33-51 '59. (MIRA 15:2)
(Mining machinery) (Radioisotopes--Industrial applications)
(Mechanical wear)

SMORODINOV, M.I.

Precast reinforced concrete piles. Osn., fund. i mekh. grun.
2 no.5:28-29 '60. (MIRA 13:9)
(Concrete piling)

SMORODINOV, M.I., inzh.

Investigating the distruction of rocks using cutters of stone-
cutting machines. Stroi. i dor. mashinostr. 5 no.8:26-28 Ag '60.
(MIRA 13:8)

(Stonecutting--Equipment and supplies)

ARKHANGEL'SKIY, A.S., kand. tekhn. nauk; VASIL'YEV, N.V., kand. tekhn. nauk; GORDIYENKO, B.I., inzh.; SAMOYLOV, V.P., kand. tekhn. nauk; TERENETSKIY, L.N., inzh. Prinimali uchastiye: DEMESHKO, Ye.A., inzh.; KUBENEV, Kh.K., kand. tekhn. nauk; SMORODINOV, M.I., kand. tekhn. nauk; KHRAPOV, V.G., kand. tekhn. nauk; NIKOL'SKIY, I.S., inzh.; KATKOV, G.A., inzh.; VORONTSOVA, N.D., starshiy laborant; BLAGOSLAVOV, Yu.B., kand. tekhn. nauk, nauchnyy red.; SMIRNOVA, A.P., red. izd-va; IGNAT'YEV, V.A., tekhn. red.

[Underground mining in loose rocks] Prokhodka podzemnykh vyra-
botok v sypuchikh porodakh. Pod obshchei red. A.S. Arkhangel'skogo.
Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materia-
lam, 1961. 205 p. (MIRA 14:11)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut osnovaniy
i podzemnykh sooruzheniy. 2. Sotrudniki Laboratorii metodov vozve-
deniya podzemnykh sooruzheniy Nauchno-issledovatel'skogo instituta
osnovaniy Akademii stroitel'stva i arkhitektury SSSR (for all
except Blagoslavov, Smirnova, Ignat'yev).
(Mining engineering)

SMORODINOV, M. I., inzh.

Using the radioisotope method to study the abrasive character
of rocks. Sbor. trud. MISI no.39:466-467 '61. (MIRA 16:4)

1. Nauchno-issledovatel'skiy institut osnovaniy Akademii
stroitel'stva i arkhitektury SSSR.

(Abrasion) (Rocks--Analysis)
(Radioisotopes--Industrial applications)

MIKHEYEV, V.V.; SEREBRYANYI, R.V.; SMORODINOV, M.I.

Zones of plastic deformation in foundations. Osn., fund. i
mekh. grun. 3 no.3:12-13 '61. (MIRA 14:7)
" (Deformations (Mechanics))
" (Foundations)

SMORODINOV, M.I.

Some foundation construction methods used abroad. Obn., fund.1
mekh.grun. 3 no.6:22-23 '61. (MIRA 15:4)
(Foundations)

SMORODINOV, M.I., inzh.

Pile-driving equipment and piles in Sweden. Stroi. i dor.
mash. 6 no.6:38-39 Je '61. (MIRA 14:7)
(Sweden—Piling (Civil engineering))

SMORODINOV, M.I., inzh.

Studying the abrasive properties of rocks by means of radioactive
isotopes. Ugol' 36 no.4:32-34 Ap '61. (MIRA 14:5)
(Radioisotopes--Industrial applications)
(Mining machinery--Testing)

SMORODINOV, M.I.

Discussion of S.G.Uvarov's article "Determining the field of application and basic parameters of coal loading in mines without the use of bins." Ugol' 37 no.2:53-54 F '62.

(MIRA 15:2)

1. Glavnyy tekhnolog Vsesoyuznogo tsentral'nogo proyektного instituta po proyektirovaniyu shakhtnogo stroitel'stva kamennougol'noy promyshlennosti.

(Mine haulage)

(Loading and unloading)

(Uvarov, S.G.)

SMORODINOV, M.I.

Determining strains in cutting rock. [Trudy] NII osn. no. 47:38-45
'62. (MIRA 15:6)
(Stonecutting)

SMORODINOV, M.I.

Mechanical breaking down of soils and rock. [Trudy] NII osn.
no.49:90-96 '62. (MIRA 15:12)
(Soil mechanics) (Excavation)

YEFREMOV, M.G.; SMORODINOV, M.I.

For further improvement of the organization and mechanization
of foundation construction work in large-panel construction.
Osn., fund.i mekh.grun. 4 no.5:1-2 '62. (MIRA 15:12)
(Foundations)
(Precast concrete construction)

SMORODINOV, M.I.

Problems of the mechanization of piling operations (results
of a coordinating conference). Osn., fund. i mekh. grun. 4
no.6:28-29 '62. (MIRA 16:1)
(Piling (Civil engineering)--Congresses)

SMORODINOV, M.I., kand. tekhn. nauk; ZHMAYEV, M.I., inzh.;
FEDOROV, A.N., inzh.

Some problems of the design of machines for cutting frozen
ground, and research objectives. Stroi. i dor. mash. 7 no.4:
14-15 Ap '62. (MIRA 16:7)

(Frozen ground)

(Earthmoving machinery)

IVANOV, Yu.M., doktor tekhn. nauk; MAZUR, F.F., nauchn. sotr.;
POL'SHIN, D.Ye., kand. tekhn. nauk; FEDOROV, A.N.,
nauchn. sotr.; SEREBRENNIKOV, L.S., nauchn. sotr.;
SMORODINOV, M.I., kand. tekhn. nauk; DROZD, T.A., red.
izd-va; MOCHALINA, Z.S., tekhn. red.

[Instructions on work involving the handling of radioactive substances in research establishments of the State Committee on Construction of the Council of Ministers of the U.S.S.R.] Instruktssiia po rabote s radioaktivnymi veshchestvami v nauchno-issledovatel'skikh uchrezhdeniakh Gosstroia SSSR. Moskva, Gosstroizdat, 1963. 105 p.

(MIRA 17:2)

1. Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy. 2. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy, Moscow (for Mazur). 3. Nauchno-issledovatel'skiy institut osnovaniy i podzemnykh sooruzheniy (for Fedorov, Smorodinov). 4. Nauchno-issledovatel'skiy institut stroitel'noy fiziki i ograbdayushchikh konstruktsiy (for Serebrennikov).

S. ONODINOV, P.I., kand. tekhn. nauk; ABEZGAUZ, V.D., kand. tekhn.
nauk, retsenzent; OTDEL'NOV, P.V., red.izd-va; DEMKINA,
N.F., tekhn. red.

[Wear-resistant tools for construction machinery] Iznoso-
stoikie instrumenty dlia stroitel'nykh mashin. Moskva,
Mashgiz, 1963. 153 p. (MIRA 17:1)

SVETINSKIY, Ye.V.; SMCRODINOV, M.I.

Effectiveness of using equipment in laying foundations in
large-scale construction. Csn., fund. i mekh. gran. 6 no.3:
20-21 1964 (MIRA 17:7)

SMOFCDINOV, M.I., kand. tekhn. nauk

Machinery for building foundations by the boring method.

Stroi. i dor. mash. 9 no.6:16-19 Je '64. (MIRA 18:11)

SRORODINOV, N.I., kand. tekhn. nauk.; STETINSKIY, Ye.V.

New pile drivers for builders. Stroi. i dor. mash. 9 no. 7:
19-22 S '61. (MIRA 17:11)

L 10994-66 EWT(m) DIAAP

ACC NR: AP6000143

SOURCE CODE: UR/0225/65/000/005/0007/0009

AUTHOR: Smorodinov, M. I.; Morozov, A. A.

ORG: none

TITLE: The use of radioisotopes in determining soil density and moisture content

SOURCE: Osnovaniya, fundamenty, i mekhanika gruntov, no. 5, 1965, 7-9

TOPIC TAGS: soil property, density determination, moisture determination, radio-activity measurement, nuclear physics apparatus, density gauge, radioisotope, measuring apparatus / GP-1 density gauge

ABSTRACT: The GP-1 ¹⁹underground density gauge¹⁹ (see fig. 1) enables measurement of the soil density through the measurement of scattered gamma rays. The use of this instru-

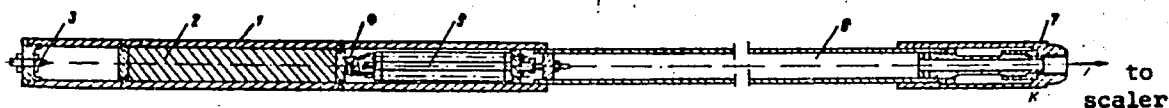


Fig. 1. GP-1 gauge for determining soil density. 1--duraluminum tube; 2--lead shield; 3--gamma ray source; 4--retaining spring; 5--counters; 6--cathode follower; 7--handle.

UDC: 624.131.4 : 539.163

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L 10994-66

ACC NR: AP6000143

ment requires only one borehole. A Co-60 source located in the lower part of the instrument is separated by a lead shield from the detector in the upper part of the probe. The VG-1 gauge--which resembles the GP-1 probe--was developed for moisture measurements. A plutonium-beryllium fast neutron source is used with the activity of 3.78×10^5 n/sec. The amount of water is based on the measurement of thermal neutrons produced by the interaction of fast neutrons with hydrogen containing compounds--primarily water. The instruments are calibrated in the laboratory by means of standard soil mixtures with fixed moisture content. Using the same calibration graph the moisture monitor can be used with $\pm 1.5\%$ accuracy in different soils. Orig. art. has: 6 figures.

SUB CODE: 20,08

SUBM DATE: 00/

ORIG REF: 000/

OTH REF: 000

Calculating generation thresholds ...

S/109/62/007/003/027/029
D234/0302

out by the authors for this type of oscillations is given. There are 6 references: 3 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: R. Denton, Proc. IRE, 1960, 48, 5, 937; L. Walker, Phys. Rev., 1957, 105, 2, 390; R. Denton, J. Appl. Phys. 1961, Suppl., 32, 3, 300. *JB*

SUBMITTED: October 14, 1961

Card 2/2

KARLEN, A.A.; SHAROV, A.A.

Some methodical problems involved in the manufacture and use of
the electrode as a steady mercury drop on a platinum contact.
Sov. Acad. Sci. Rep. 1 prepar. no. 5/6:32-37 '63. (MIRA 17:9)

1. Tomskiy politkhnicheskii institut.

STROGAN, A.I.; MISHKOV, A.S.; SHCHERBOV, V.S.; FENKHA, V.I.

Determination of bismuth, copper, lead, indium, and zinc in tin.
Labor. anal. khim. rez. i prepar. no. 1:72-73. (M.I. 17:9)

1. Tomskiy politekhnicheskii institut.

L 17809-65 EWT(1)/EWA(h) Pm-4/Peb ESD(dp)
ACCESSION NR: AP4045501 S/0109/64/009/009/1717/1719

AUTHOR: Vasil'yev, A. A.; Smorodinov, V. S.

TITLE: Parametric generation in ferrites with longitudinal pumping B

SOURCE: Radiotekhnika i elektronika, v. 9, no. 9, 1964, 1717-1719

TOPIC TAGS: parametric generation, ferrite parametric generation,
ferrite amplifier, ferrite

ABSTRACT: The authors have experimentally investigated parametric generation in small ferrite spheres under pulsed pumping conditions. The applied pulses had a duration of approx. 10 sec with oscillations being monitored on a heterodyne receiver. It was found that under pulse conditions the threshold power required for oscillation was considerably greater than in the case of continuous pumping, and that the amplitude of the generated oscillation fell off sharply below some critical pump-pulse duration. The threshold-pulse duration could not be accurately determined, due to the insensitivity of the receiver at these increasingly lower amplitudes. The investigation shows that ferrite amplifiers can operate as parametric systems under

Card 1/2

L 17809-65

ACCESSION NR: AP4045501

either pulsed or steady-state pumping conditions. The authors also propose a simplified method for calculating the amplitude of parametric oscillations. Orig. art. has: 3 figures and 3 formulas.

ASSOCIATION: none

SUBMITTED: 18Jul63

ENCL: 00

SUB CODE: EC

NO REF SOV: 005

OTHER: 002

Card 2/2

DONSKOY, Aleksandr Vasil'yevich; IVENSKIY, Grigoriy Vasil'yevich;
POSSE, A.V., kand. tekhn. nauk, retsenzent; MONDRUS, D.B.,
kand. tekhn. nauk, retsenzent; & ORODINOV, V.V., red.

[Electrothermal systems with electronic converters with in-
creased frequency] Elektrotermicheskie ustanovki s ionnymi
preobrazovateliami povyshennoi chastoty. Moskva, Izd-vo
"Energia," 1964. 209 p. (MIRA 17:6)

L 56085-65 ENT(m)/T/EWP(t)/EWP(b) JD
ACCESSION NR: AR5015146

UR/0137/65/000/005/B010/B010

SOURCE: Ref. zh. Metallurgiya, Abs. 5B57

AUTHOR: Donskoy, A. V.; Smorodinov, V. V.

TITLE: Use of damped oscillations in electrothermics

CITED SOURCE: Elektrotermiya. Nauchno-tekhn. sb., vyp. 42, 1964, 34-36

TOPIC TAGS: electrothermics, oscillation, damping, damped oscillation, induction heating, high frequency oscillation, impact excitation generator, ultrasonic process, electroerosion process

TRANSLATION: In induction heating, from the viewpoint of transfer of energy to the object being heated, damped oscillations do not differ essentially from sustained. A scheme of a high frequency damped oscillation generator using ionic control instruments is described. This is the most economical means of producing high frequency damped oscillations. Similar designs for impact excitation generators are limited to a range of frequencies up to 10 kilocycles. The latest improvements of these generators and the use of hydrogen thyratrons make it possible to obtain frequencies up to megacycle units. The use of damped

Card 1/2

L 56085-65

ACCESSION NR: AR5015146

oscillations is also expedient for other industrial processes, for example,
ultrasonic and electroerosion processing. 3 figures, 7 literature titles.
(From R. Zh. Elektrotehnika)

SUB CODE: EC, MM

ENCL: 00

BRUNNEN, A.G., Direktor techn. Arb., Prof. Dr. 1911, 1912, 1913.

Operating mode of a damped oscillations generator with induction heating. Elektricheskoe no. 1, 1964-65. 3a 105. (U.S.S.R. 13:7)

1. Leningradskiy politekhnicheskiy institut im. M.I. Kalinina.

RESEARCH, CIVIL, ECONOMIC, AND

high frequency trading of areas and total price of the last of
output, including generation. (Study of the power of the last of
1978-1979)

DONSKOY, A.V.; LUTSKER, I.Sh.; SMORODINOV, V.V.

Noncontact temperature regulators with semiconductor thermal pickups for electric resistance heaters. Izv. vys. ucheb. zav.; prib. 8 no.3:119-124 '65. (MIRA 18:11)

1. Leningradskiy politekhnicheskoy institut imeni Kalinina.
Rekomendovana kafedroy elektroizmeritel'noy tekhniki.

ACC NR: AP7006048

SOURCE CODE: UR/01.11.66/000/003/0288/0892

AUTHOR: Donskoy, A. V.; Smorodinov, V. V.

ORG: none

TITLE: Frequency converter incorporating controlled silicon rectifiers

SOURCE: IVUZ. Elektromekhanika, no. 8, 1966, 888-892

TOPIC TAGS: frequency converter, electronic rectifier, electronic circuit

ABSTRACT: An approximate method for calculating a frequency converter of this kind is presented, for a converter circuit with the parametric ratios $L_1/L_K = 2$, $C_1/C = 0.5$, $\omega/\omega_0 = 1.1$ for which the time interval assigned to the deionization rectifier is roughly twice as long as in circuits of autonomous inverters. In this circuit, trigger pulses are shifted 180° in phase and supplied to the rectifiers B_1B_4 and B_2B_3 with the circular frequency ω . It is shown that the required power of the rectifier must be in agreement with the power lost in the tank circuit in order for the mathematical analysis to maximally approximate real processes in the frequency converter. The results of the mathematical analysis are verified with the aid of a model (2.5 kilo-cps, 5 kw) of a frequency converter incorporating VKU-100 type silicon rectifiers. Orig. art. has: 3 figures and 14 formulas. [JPRS: 38,694]

SUB CODE: 09

UDC: 621.314.64+621.3.02

Card 1/1

SMORODINOV, V.Ya.; POPOV, V.V.

Using a flame screen in a furnace for heating pipes. Gaz.
prom. 8 no.6:24-26 '63. (MIRA 17:8)

СИМОНОВ, П. А. и КАРПЕНКО, З. А.

22702

О совершенствовании ткацкого станка и механизации, применяемой
при изготовлении тканей. Труды Ленингр. Текстиль. Ин-та им.
Кирова, № 2, 1949, с. 113-23

См. Летопись № 40

AZIMOV, P.T.; SMORODINOVA, L.D.

Taking and processing samples to be analyzed for accessory
minerals. Uzb. geol. zhur. no.6:46-57 '60. (MIRA 14:1)

1. Institut geologii AN UzSSR.
(Minerals--Analysis)

9.3/20 (1003, 1043, 1140)
26.2531

07219

S/358/60/000/011/01/01
R001/R001

Translation from: Referativnyy zhurnal Fizika, 1960 No. 11, p. 307. # 30475

AUTHORS Smorodina, M.I., Sytaya, Ye.P.

TITLE An Investigation of Changes in Thermionic Properties of Rhenium-Coated Tungsten Cathodes

PERIODICAL: Tr. Sredneaz, un-ta, 1959, No. 148, pp. 9-22

TEXT: Thermionic and structural characteristics of W-Re cathodes were investigated by means of a cylindrical projector, a metallographic microscope and X-ray diffraction study. The distribution of emission current (j) over the perimeter of a filament cathode was measured after various stages of thermal treatment. It is shown that Re-coating of the cathode grows more uniform after calcination, and after protracted calcination at a temperature of 2,600-2,700°K the filament becomes face-bounded (a plateau shows up on curves $j = f(\alpha)$, where α is the filament deflection angle). The control curve of relation $j = f(\alpha)$ for pure W is characterized by the presence of symmetric maxima corresponding to the cubic system in which W crystallizes. A conformity of Re-coating with the outline of the W-skeleton was discovered. The values of $\phi = 4.77$ e and $A = 350$ amp/cm² de-

93120
28 2012
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16881
S/181/62/004/004/027/042
B102/B104

AUTHORS: Sytaya, Ye. P., Smorodina, M. I., and Imangulova, N. I.

TITLE: Electron and ion emission from the faces (110) and (100) of a big tungsten monocrystal

PERIODICAL: Fizika tverdogo tela, v. 4, no. 4, 1962, 1016-1020

TEXT: The authors measured the electron work function for the faces (110) and (100) of W single crystals by means of electron emission and surface ionization of Na and Ba atoms. The pressure in the tube in which the measurements were made was less than 10^{-8} mm Hg, the samples were heated before measuring up to $\sim 2600^\circ\text{K}$. The work function was determined from the straight lines $\log(I/T^2) + C = f(1/T)$ (Richardson law) with $A_0 = 120 \text{ a/cm}^2 \cdot \text{deg}^2$ and $D=1$. The work functions obtained were:

$\phi_{(110)}^* = 5.30 \pm 0.06 \text{ eV}$ and $\phi_{(100)}^* = 4.66 \pm 0.06 \text{ eV}$. From the salient points of the temperature dependence of the electron emission the threshold temperatures of oxygen adsorption were determined. They were $\sim 2100^\circ\text{K}$ for the (100) face and $\sim 2000^\circ\text{K}$ for the (110) face. The lower

Card 1/5

Electron and ion emission from...

S/161/62/004/004/027/042
B102/B104

ASSOCIATION: Tashkentskiy gosudarstvennyy universitet im. V. I. Lenina
(Tashkent State University imeni V. I. Lenin)

SUBMITTED: July 20, 1961 (initially)
December 19, 1961 (after revision)

Card 3/3

L 07905-67 EWT(m)
ACC NR: AT6033193

SOURCE CODE: UR/3138/66/000/438/0001/0024

AUTHOR: Kolybasov, V. M. ; Smorodinskaya, N. Ya.

ORG: none

TITLE: Theoretical analysis of knocking out reaction

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii.
Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 438, 1966.
Teoreticheskiy analiz reaktsiy vybivaniya, 1-24

TOPIC TAGS: nucleus, matrix element, light nucleus, nucleon

ABSTRACT: Knocking out processes are analyzed theoretically. The differential cross sections of the $(p,2p)$ reactions calculated in the pole approximation are compared with almost all available experimental data at 155 Mev, 185 Mev, and 450 Mev. The proton widths of the light nuclei obtained from the $(p,2p)$ reactions are compared with those obtained from stripping or pick-up. In the consideration of a series of reactions, (p,pa) and $(\bar{\pi}^-, \bar{\pi}^+n)$ for instance, only full cross sections are measured. A simple analysis of such reactions based on the effective number of nucleons in the nucleus is made, and conditions required for the

Smorodinskaya, V. G.

1. Nitrogen metabolism in muscles at different stages of ontogenesis. A. I. Silakova and V. G. Smorodinskaya (Inst. Biochem., Acad. Sci. Ukrain. S.S.R., Kiev). *Ukrain. Biokhim. Zhur.* 27, 375-83 (Russian summary 333-4) (1956).
 —The purpose of the study was to det. the mechanism of changes in metabolic processes of NH_3 and of glutamine-glutamic acid in muscles of rabbits at various stages of their ontogenic development. Heart muscles of new-born animals differ only little chemically from those of adult animals. This is not true of the skeletal muscles. In the early stages of ontogenesis the content of NH_3 , glutamine, and glutamic acid are high in the heart and skeletal muscles. In the skeletal muscles of rabbit embryos 25 days old the total N of those components averages 203.3 mg. % (5 times as high as in full-grown animals); in the heart muscles the av. total N values are, resp., 258.5 and 119.5 mg. %. In the later ontogenic stages, as the intensity of the process of growth reaches lower levels, the glutamine-glutamic acid system content is reduced, as is the glutaminase activity. In the muscles of 25-day old rabbit embryos and in young rabbits up to 10 days old, the av. content of NH_3 in skeletal muscles is high (30.0, 20.0, and 21.0 mg. %). It gradually reduces and on the 30-60th post-embryonic day reaches the normal level found in the adult animal. B. S. Levine.

SMORODINS'KA, V.G.

Med The biochemical processes of traumatically injured muscles. S. F. Epshteln and V. G. Smorodins'ka (Inst. Biochem., Acad. Sci. Ukr. S.S.R., Kiev). *Ukrain. Biochim. Zhur.* 28, 207-15 (in Russian, 215-16) (1958).—Two to 3 months after the unilateral removal of the shoulder muscle in chicks the content of adenosinetriphosphate (I) of the newly developed muscle is lower than in the corresponding muscle on the intact side. The specific activity of the total and acid-sol. P, arising from the administered radioactive P in Na_2HPO_4 , is higher than in the control muscle. In the rabbit muscle, traumatically injured, the changes in N and P compds. are of considerable magnitude. They are, however, largely reversible. Thus, the lowered creatine and myosin return to their original levels in 3-5 days. I is considerably lowered in the traumatized muscle of the rabbit. The high specific activity of administered P^{32} found in the P compds. studied indicates an intensive utilization of I by traumatically injured muscles of the rabbit. B. S. Levine

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L 07905-67 EMT(m)
ACC NR: AT6033193

SOURCE CODE: UR/3138/66/000/438/0001/0024

34
33
13+1

AUTHOR: Kolybasov, V. M.; Smorodinskaya, N. Ya.

ORG: none

TITLE: Theoretical analysis of knocking out reaction

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii.
Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 438, 1966.
Teoreticheskiy analiz reaktsiy vybivaniya, 1-24

TOPIC TAGS: nucleus, matrix element, light nucleus, nucleon

ABSTRACT: Knocking out processes are analyzed theoretically. The differential cross sections of the $(p, 2p)$ reactions calculated in the pole approximation are compared with almost all available experimental data at 155 Mev, 185 Mev, and 450 Mev. The proton widths of the light nuclei obtained from the $(p, 2p)$ reactions are compared with those obtained from stripping or pick-up. In the consideration of a series of reactions, (p, pa) and (π^-, π^-n) for instance, only full cross sections are measured. A simple analysis of such reactions based on the effective number of nucleons in the nucleus is made, and conditions required for the

SMODODINSKIY, A., inzhener.

Couplings for automatically cutting out an electric motor.
Muk.-elev.prom. 23 no.3:24 Mr '57. (MLRA 10:5)

1. Khar'kovskaya mel'nitsa No. 3.
(Grain-milling machinery--Electric driving)

SUPRUNOV, A., inzh.; SMORODINSKIY, A., inzh.; KHARAKHASH, V., inzh.

Installation of pneumatic transportation in the grain cleaning
section of the Kharkov Flour Mill No.3. Muk.-elev. prom. 23 no.10:
16-19 0 '57. (MIRA 11:1)

1. Khar'kovskoye oblastnoye upravleniye khleboproduktov.
(Kharkov--Flour mills) (Pneumatic-tube transportation)

SMORODINSKIY, A.

Reversible magneto impulse starter for sack stitching machines.
Muk. elev. prom. 23 no.12:19 D '57. (MIRA 11:2)

1. Khar'kovskaya mel'nitsa No.3.
(Flour mills--Equipment and supplies)

SMORODINSKIY, A., inzh.

Protection of electric motors from burning out. Muk-elev. prom.
24 no.6:27 Je '58. (MIRA 11:7)

1. Khar'kovskaya mel'nitsa No.3.
(Electric motors)

SMORODINSKIY, A.

Operating ZN-10 scourers. Muk.-elev. prom. 27 no.2:21 F '61.
(MIRA 14:4)

1. Glavnyy inzhener Khar'kovskoy mel'nitsy No.3.
(Grain-milling machinery)

ABELEV, Yu.M., doktor tekhn. nauk, prof.; ABELEV, M.Yu., inzh.;
 BAKHOLDIN, B.V., kand. tekhn. nauk; BEREZANTSEV, V.G.,
 doktor tekhn. nauk, prof.; VYALOV, S.S., doktor tekhn.
 nauk; GODES, E.G., inzh.; GORBUNOV-POSADOV, B.I., doktor
 tekhn. nauk, prof.; DAINATOV, B.I., doktor tekhn. nauk,
 prof.; DOKUCHAYEV, V.V., kand. tekhn. nauk; KRUTOV, V.I.,
 kand. tekhn. nauk; KSENOFONTOV, A.I., kand. tekhn. nauk;
 MARIUPOL'SKIY, G.M., kand. tekhn. nauk; MORARESKUL, N.N.,
 inzh.; PERLEY, Ye.M., inzh.; SAVINOV, O.A., doktor tekhn.
 nauk; SIDOROV, N.N., kand. tekhn. nauk; SMORODINSKIY,
 N., kand. tekhn. nauk; SOKOLOV, N.M., doktor tekhn. nauk;
 FELDKEIN, A.Ya., inzh.; SHASHKOV, S.A., kand. tekhn. nauk;
 MEYKOV, M.L., inzh.; YAROSHENKO, V.A., kand. tekhn. nauk,
 [deceased]; KHALIZEV, Ye.P., kand. tekhn. nauk, nauchn. red.

[Manual for the designing of industrial plants, apartment
 houses, and public buildings and structures; foundations]
 Spravochnik proektirovshchika promyshlennykh, zhilykh i
 obshchestvennykh zdaniy i sooruzheniy; osnovaniya i funda-
 menty. Leningrad, Stroiizdat, 1964. 268 p.
 (MIRA 18:1)

SMORODINSKY, A. YA.

PHASE I BOOK EXPLOITATION SOV/3405

Soveshchaniye po voprosam kosmologii. 6th, Moscow, 1957

Vnegalakticheskaya astronomiya i kosmologiya: trudy soveshchaniya (Extragalactic Astronomy and Cosmology: Transactions of the 6th Conference on Problems of Cosmology, June 5-7, 1957) Moscow, AN SSSR, 1959. 273 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR.

Ed. of Publishing House: L.V. Samsonenko; Tech. Ed.: G.N. Shevchenko; Editorial Board: D.A. Frank-Kamenetskii (Resp. Ed.) Professor; B.A. Vorontsov-Vel'yaminov, Corresponding-Member.

PURPOSE: The book is intended for astronomers and physicists studying problems of general cosmology.

COVERAGE: The book is a collection of papers on cosmology read by scientists participating in a conference held in Moscow, June 5-7, 1957. The papers review recent observational and theoretical work in extragalactic astronomy, gravitation theory, theory of relativity, red shift, radio astronomy, formation of chemical elements, thermodynamics of the universe, isotropy, etc. No personalities are mentioned. There are references following most of the reports.

Martynov, B.Ye. Spiral Galaxy M 101 51
Martynov, D.Ya. Reliability of Observational Data in Extragalactic Astronomy 70

Maurovskiy, V.I. and P.V. Shestakov. Application of Electronic-Optical Methods to Extragalactic Astronomy 89

Vitkevich, V.V. Discrete Sources of Radio Emission (Radio Stars) and Prospects for their Study 94
Ginzburg, V.L. Experimental Verification of the General Theory of Relativity (Summary of Report) 114

Vlasov, A.A. Spatial, Non-homogeneous Distributions of the System of Gravitating Particles 116

Smorodinskiy, A.Ya. Isotropic Models of the Universe 131
Lifshitz, E.M. Gravitational Stability in the General Theory of Relativity (Summary of Report) 141

Zel'manov, A.L. Relativistic Theory of an Anisotropic Non-homogeneous Universe 144

Shapiro, M.P. Theory of Red Shift in Spectra of Distant Objects 175

Shklovskiy, I.S. Radio Astronomy and Cosmology (Summary of Report) 156

Cherdyn'tsev, V.V. Conditions of Formation of Atomic Nuclei According to Data on Their Distribution 192

Frank-Kamenetskii, D.A. Origin of Chemical Elements From the Point of View of the Theory of Internal Structure and Stellar Evolution 200

Teslat'skiy, Ya. P. Problems of Statistical Physics and Thermodynamics of Gravitating Systems 214

Idlis, G.M. Structural Infinity of the Universe and the Metagalaxy as a Typical Populated Cosmic System (Summary of Report) 270

Plotkin, I.R. Some Remarks on the Growth of Entropy 228

Stan'yukovich, K.P. On the Thermodynamics of the Universe 219

Naah, G.L. General Problems of Cosmology 243

SMORODINSKIY, G.Ye.

Hydropneumatic lifting table for horizontal forging
machines. Sbor. Novo-Kram. mashinostroi. zav. no. 334.39
159. (MIRA 17:1)

SMORODINSKIY, I. M.

USSR/Engineering - Tower cranes

Card 1/1 : Pub. 70 - 5/9

Authors : Barsov, I. P., and Smorodinskiy, I. M., Engineers

Title : Movable tower cranes

Periodical : Mekh. stroi. 3, 19-23, March 1954

Abstract : Description and technical characteristics of several types of tower cranes, used in large construction works (construction of large buildings, bridges, etc), are presented. Drawings; illustrations.

Institution :

Submitted :

MYSHKIN, Vyacheslav Grigor'yevich; SMORODINSKIY, I.M., inzh., retsen-
zent; IVANOV, D.N., inzh., red.; MODEL', B.I., tekhn. red.;
SMIRNOVA, G.V., tekhn. red.

[Truck-mounted cranes] Avtomobil'nye krany. Izd.2., perer. Moskva,
Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1961. 210 p.
(MIRA 14:12)

(Cranes, derricks, etc.)

SMORODINSKIY, Isaak Mendeleyevich; ABRAGAM, S.R., inzh., red.;
USENKO, L.A., tekhn.red.

[Cranes on tractors and motortrucks for railroad construction]
Kran'y na traktorakh i avtomobiliakh dlia transportnogo stroi-
tel'stva. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei
soobshchenia, 1962. 79 p. (MIRA 15:4)
(Cranes, derricks, etc.)
(Railroads--Construction)

STORODENSKIE, I.M., tech.

The KB-100.2 and KB-100.4 cranes used in constructing multi-
storied buildings and grain elevators. Stroil. i dor. mash. 10
no.1:5-8 Ja '45 (MIRA 12:2)

NEW YORK, N.Y., June 1, 1965. (NY 100-100000)

Power France 1965, by the U.S. companies at the International Exhibition
in Moscow. Stock. (NY 100-100000) 100-100000 (MIRA 10:0)

SOLYARSKIY, A.P., inzh.; ANDREYEV, V.A., inzh.; SMORODINSKIY, M.P., inzh.;
RODOV, E.S., inzh.

Making mineral wool by the method of vertical centrifuging. Stroi.
mat. 6 no.12:3-5 D '60. (MIRA 13:11)
(Mineral wool)

LYANITSKIY, V.Ye., professor, doktor tekhnicheskikh nauk; SMORODINSKIY, N.A., dotsent; SHTENTSEL', V.K., dotsent; KAGAN, Ya.Ih., Kandidat tekhnicheskikh nauk; ROMASHEV, D.G., inzhener; STREL'CHENI, M.M., inzhener.

[Harbor hydraulic-engineering installations] Portovye gidrotekhnicheskie sooruzhenia. Moskva, Izd-vo Ministerstva morskogo i rechnogo flota SSSR. Part 1. 1953. 624 p. (MLRA 6:12)
(Harbors) (Hydraulic engineering)

SIVERTSEV, Ivan Nikolayevich, professor; SMORODINSKIY, Naum Avseyevich, dotsent; SOBOLEV, Nikolay Nikoforovich, dotsent; VAKHARLOVSKIY, Gleb Anatol'yevich, inzhener; SHTENTSEL'V.K., redaktor; LYAKHNITSKIY, V.Ye., professor, doktor mekhanicheskikh nauk, redaktor; VOLCHOK, K.M., tekhnicheskii redaktor

[Harbor hydraulic structures] Portovye gidrotekhnicheskie sooruzheniia. Leningrad, Izd-vo "Rechnoi transport," Lenin-gradskoe otd-nie. Pt.2. 1955. 387 p. (MLRA 9:3)
(Hydraulic engineering)

Smorodinskij, V.N.

18 18
✓ Annealing Malleable Iron in a Liquid. V. N. Smorodinskij.
(Leningrad. *Proizvodstvo*, 1958, (8), 31). [In Russian]. A
two-stage annealing of malleable-iron is briefly described.
The first stage is carried out in a bath of fused NaCl (70%
by volume) and BaCl₂ (30%), giving a structure of globular
carbon + lamellar pearlite.—S. X.

4E2C

RB
MT

Compton effect on the meson. Ya. A. Smorodinskii.
J. Exptl. Theoret. Phys. (U. S. S. R.) 10, 840-5(1940);
J. Physics (U. S. S. R.) 3, 143-7(1940).—Math. A
 formula for the scattering of light on a free meson is de-
 rived. On the basis of Landau's criterion this is applicable
 to wave lengths of the order of the classical radius of the
 meson. F. H. Rathmann

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUP 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX										3RD AND 4TH ORDERS									
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Scattering of light by mesotrons. L. Landau and Ya. Smorodinskii. <i>J. Exptl. Theoret. Phys.</i> (U. S. S. R.) 11, 35 42(1941); <i>J. Phys.</i> (U. S. S. R.) 4, 455 60(1941). - Math. The cross section of mesotrons increases with increase of the energy involved in the process because the mesotron, contrary to the electron, cannot be treated as a math. point even in a fixed-coordinate system. Landau (C. A. 39, 9079) gave a criterion which permits an estimate of the cross section of the mesotron even for the highest energies. This criterion is used to evaluate the cross section for (1) the Compton effect on the mesotron, (2) the formation of mesotron pairs in collision of two photons, (3) the scattering of a mesotron in a coulombic field, cross sections remaining finite even for the highest energies. It follows from these calculations that the scattering of mesotrons by the coulombic field of protons is negligible when compared with the scattering by electrons. M. Afsar																													
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"BREMSSTRAHLUNG" OF THE PARTICLES WITH UNIT SPIN (MESOTRONS)). Smorodinsky, J. J. Phys., USSR, 6,6, pp. 264-277, 1942.- The effective cross-section for the "Bremsstrahlung" of particles with unit spin is calculated by the method of retarded potentials, it being supposed that the energy of the particles is large compared with the rest energy of the mesotron. The applicability of the cross-section for large energies is considered. The effect of recoil and of the dimensions of the nucleus on the cross-section is calculated. The more precise formula of Christy and Kusaka (Abstr. 1077 (1941)) is discussed. A. J. M.																			
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6. Sub. Matter

Compton effect and the hole theory. J. Smorodinski (*J. Physics U.S.S.R.*, 1943, 7, 92).—The cross-section of the Compton effect calc. by Bhabha *et al.* (*A.*, 1942, 1, 384) on the basis of the hole theory is incorrect, and their conclusions concerning inconsistency in the Dirac theory are unfounded. A. J. M.

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On the wave equations for particles with variable spin. GINSBURG, V., <i>Ann. Phys.</i>, 1, pp. 52-53, 1944.—By an (l, j) particle is meant one which can exist in states with spins l and j and with different values of the rest mass. The relativistic wave equations for such a particle, recently proposed by Ginsburg, are said to split up if, by means of a certain transformation of the wave functions, they reduce to a system of equations for a particle with the spin l and for a particle with the spin j, which are independent of each other. It is shown that the equations for a $(0, 1)$ particle and for a $(\frac{1}{2}, \frac{1}{2})$ particle always split up in the absence of a field and also in the case of a certain type of inter- action with an electromagnetic field. The equations for a $(1, 2)$ particle are also separable in the absence of a field, but this is not the case for a $(\frac{1}{2}, \frac{1}{2})$ particle.																										AS 3 b																									
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